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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,828	11/19/2003	Erik Roelof Loopstra	081468-0306843	3642
909	7590	11/02/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			NGUYEN, HUNG	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			2851	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/715,828	LOOPSTRA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hung Henry V. Nguyen	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 September 2005.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-12, 14 and 15 is/are allowed.
- 6) Claim(s) 13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/22/05.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 13 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tanaka (EP-1137054).

With respect to claim 13, Tanaka discloses a lithographic projection apparatus comprising all basic features of the instant claim such as: an illumination system (IOP) for providing a beam of radiation used to irradiate a patterning device; a first support (RST) for supporting a patterning device (R), the patterning device capable of patterning the beam of radiation; a second support (WST) for supporting a substrate (W); a projection optical system (PL) for projecting a predetermined pattern formed on the patterning device onto the substrate; and a projection system positioning module (118) that *controls at least one of a position and an orientation* of the projection system during projection of the patterned beam of radiation onto the target portion of the substrate.

### *Response to Arguments*

3. Applicant's arguments filed September 29, 2005 have been carefully reviewed but they are not found persuasive. The applicant is reminded that the claimed subject matter to

examination will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification are not be read into the claims. In re Yamamoto, 740 F. 2d 1569, 1571, 222 USPO 934, 936 (Fed.Cir. 1984). With this in mind, the discussion herein will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitation that is not in the claims or any argument that is irrelevant to or does not relate to any specific claimed language will not be warranted.

Applicant argues that in the exposure apparatus of Tanaka, “a parallel link mechanism (74) is employed to initially set the position and attitude of the projection optical system (PL) when starting up the exposure apparatus and Tanaka makes it clear that once the position and attitude of the projection optical is set initially, the rods (118<sub>1-3</sub>) are kept in the after-adjustment state. Although Tanaka discloses that the initial setting may be repeated at a predetermined time interval or performed as the need arises, such as when fine deformation of the clean room floor occurs, Tanaka does not disclose or even remotely suggests that such positioning takes place during projection of the patterned beam of radiation onto a target portion of the substrate, as recited by claim 13”. (see remarks filed 9/29/05, page 2, lines 11-20). The Examiner respectfully disagrees with the Applicant for the following reasons: Claim 13 merely calls for “a projection system positioning module that controls at least one of a position and an orientation of the projection system during projection of the patterned beam of radiation onto a target portion of the substrate”. Tanaka teaches that “a third mechanism that controls the position and attitude, in three degrees of freedom Z, θ<sub>x</sub>, θ<sub>y</sub> of the projection optical system (PL) (see [0126]). Therefore, in the broadest sense, even during the projection of the patterned beam, the position of the projection optical system is kept unchanged by the third mechanism, as argued by the

applicant; Tanaka meets the limitations as claimed because the unchanged position/or predetermined position/or fixed position of the projection system is being controlled by the third mechanism during the projection of the patterned beam of radiation onto the target portion of the substrate, as recited in claim 13. In other words, during the projection, the projection optical system is controlled and fixed by the third mechanism so that it can be in a desirable position and attitude (see [0048], lines 49-50).

*Allowable Subject Matter*

4. Claims 1-12, 14 and 15 were previously allowed.

*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

Butler et al (U.S.Pat. 6,912,041) discloses a lithographic apparatus having a movement detector for detecting the movement of the projection system and an actuator for reducing the movement of the projection system based on the detected signal obtained by the movement detector.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Hung Henry V Nguyen**  
Primary Examiner  
Art Unit 2851